WHAT IS CLAIMED IS:

1. A computer-generated hologram for selectively reproducing a plurality of images depending on the direction of observation where complex amplitude of an object wave is recorded, wherein:

a virtual point light source group is set up spatially on a side opposite to the observation side of the hologram, luminance angular distribution A_{WLci} (θ_{xz}, θ_{yz}) of divergent light diverged from each of the virtual point light sources of said virtual point light source group toward observation side is divided by angular division, and within the divided angle, among the multiple images positioned on the plane of said virtual point light source group, a divergent light to be equal to the divergent light diverged from a point of amplitude equal to the density of pixel of the image corresponding to each of divided angle at the position of the virtual point light source or equal to a value in a certain fixed relation with the density of the images is recorded as the object light at one of the positions on the observation side of the virtual point light source group.

2. A computer-generated hologram according to claim 1, wherein each of the virtual point light sources in said virtual point light source group is a point where the spreading direction of the light is mono-dimensional, and said virtual point light source comprises a linear light source extending in a direction perpendicular to the spreading direction.

3. A computer-generated hologram for selectively

reproducing a plurality of images depending on the direction of observation where complex amplitude of an object wave is recorded, wherein:

when a predetermined illuminating light enters, a diffracted light is reconstructed, which is diverged toward observation side from each of the points of spatial virtual point group on a side opposite to observation side of the hologram, luminance angular distribution of the light is divided by angular division depending on the direction of diffraction angle so that the light is diverged from each virtual point toward the observation side of the hologram, and the diffracted light is equal to the divergent light diverging from a point with an amplitude equal to the density of pixel of the image corresponding to each divided angle or equal to a value in a certain fixed relation with the density at the position of the virtual point of the recorded images among the separate recorded images positioned on the plane of said virtual point group within the divided angle.

4. A computer-generated hologram according to claim 3, wherein each of the virtual point in said virtual point group is a point where the spreading direction of the light is mono-dimensional, and said virtual point comprises a straight line extending in a direction perpendicularly crossing the spreading direction.

5. A computer-generated hologram for selectively reproducing a plurality of images depending on the direction of observation where complex amplitude of an

object wave is recorded, wherein:

a virtual light converging point group is spatially set up on observation side of the hologram, luminance angular distribution T_{WLci} (θ_{xz}, θ_{yz}) of converged light entering from the side opposite to the observation side to each of the virtual light converging points of said virtual light converging point group is divided by angular division, and within the divided angle, among the multiple images positioned on the plane of said virtual light converging point group, these converging lights are converged to a point of amplitude equal to the density of pixel of the image corresponding to each of the divided angle or equal to a value in a certain fixed relation with the density of the images, and these converging lights are recorded as the object light at one of the positions on a side opposite to the observation side of the virtual light converging point group.

6. A computer-generated hologram according to claim 5, wherein each of the virtual light converging points of said virtual light converging point group is a light converging point where the spreading direction of the light is mono-dimensional, and said virtual converging point comprises a linear light converging line extending in a direction perpendicularly crossing the spreading direction.

7. A computer-generated hologram for selectively reproducing a plurality of images depending on the direction of observation where complex amplitude of an object wave is recorded, wherein:

when a predetermined illuminating light enters, a diffracted light is reconstructed, which is diverged at observation side through each point of spatial virtual point group on the observation side of the hologram, luminance angular distribution of the light converged to each virtual point is divided by angular division depending on the direction of diffraction angle, and among the separate recorded images positioned on the plane of said virtual point group within each of the divided angles, these converging lights are the diffracted lights converged to a position of amplitude equal to the density of pixel of the image corresponding to each divided angle or equal to a value in a certain fixed relation with the density at the position of virtual point of the recorded images, and the converging lights are reconstructed in this manner.

8. A computer-generated hologram according to claim 7, wherein each of virtual points of said virtual point group is a point where the spreading direction of the light is mono-dimensional, and said virtual point comprises a straight line extending in a direction perpendicularly crossing the spreading direction.